APRIL/MAY 2024

BABC25C/FABC25C/CABC25C — BIOCHEMISTRY – II

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. What are transaminases?
2. What is the end product of HMP shunt?
3. Define Phenylketonuria.
4. What are the types of diabetes mellitus?
5. How enzyme inhibitors affect enzyme activity.
6. Does Mychalis Menden equation apply to all enzymes?
7. Classify Vitamins.
8. Name the disease caused due to Vitamin D deficiency.
9. Write the sources of Phosphorus.
10. List the minerals acting as cofactor.

SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) Calculate the energetics for glycolysis.

Or

(b) Explain the reactions involved in transamination.

12. (a) What are the signs and symptoms of diabetes mellitus? Discuss.

Or

(b) How many types of Glycogen storage disease are there? Explain.

13. (a) How is the induced fit model different from lock and key?

Or

(b) Describe the significance of K_m and V_{max}.

14. (a) Identify the biological function of Vitamin A.

Or

(b) Write the sources of RDA and deficiency manifestations of Vitamin B_1.

15. (a) Organize the functions of calcium.

Or

(b) List the sources and RNA for sodium and potassium.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain the TCA cycle and its regulations.

17. Explain the inborn errors of amino acid metabolism.

18. Classify enzymes.

19. Describe the sources, RDA and functions of Vitamin D.

20. Elaborate on the sources of RDA and functions of Iron.

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